

Regional Shorebird Conservation Plan Activities — June 2004

Alaska — (Contact: *Brian_McCaffery@fws.gov*; 503/543-3151)

Annual Summary of Shorebird Projects

The ASG continues to meet annually and produced an annual report — *Summaries of ongoing or new studies of Alaska shorebirds during 2003*. The report is available on the Internet at <<http://shorebirdplan.fws.gov/RegionalShorebird/RegionalReports.htm>>. In 2003, 34 projects, involving 56 different investigators, were conducted in Alaska or cooperatively in regions where Alaskan-breeding shorebirds winter. Shorebird studies in Alaska are primarily conducted by agency biologists, but there is an increasing involvement by university students and faculty. Major shorebird research focus areas include the Yukon-Kuskokwim Delta, Arctic Coastal Plain, and Alaskan shorelines of the Northwestern Pacific Rainforest BCR.

Alaska Plan Revision

The Alaska Shorebird Group (ASG) is in the process of revising the Alaska Shorebird Conservation Plan, which should be completed by December 2004. Members of the ASG are taking responsibility for updating the various sections.

Flyway Populations of Bar-tailed Godwits

There is increasing concern by the ASG about the conservation status of the Bar-tailed Godwit. The Alaskan-breeding race of the Bar-tailed Godwit (*Limosa lapponica baueri*) performs the longest non-stop migration of any bird species in the world. During the course of its annual travels, it visits Alaska, New Zealand, Australia, and China. The species is harvested by Yup'ik Eskimos in Alaska and rural residents in China, and a legalized harvest has recently been proposed in New Zealand by the indigenous Maori. Unlike the vast body of scientific knowledge concerning the impacts of harvest on waterfowl, however, harvest management in shorebirds is limited to just a handful of species, none of which span the globe like Bar-tailed Godwits. The potential impact of harvest on large-bodied, long-lived shorebirds is not known, but the recent history of several other species (e.g., Eskimo Curlew, Slender-billed Curlew) suggests that depleted populations do not readily recover. There is currently a window of opportunity for developing a flyway-wide management plan that explicitly recognizes the need for international cooperation, respects national bird conservation priorities and legislation, and formally seeks and incorporates input from all stakeholders, including in particular those indigenous peoples throughout the flyway who have strong socioeconomic and cultural investment in the species.

U.S. Pacific Islands — (Contact: *Maura_Naughton@fws.gov*; 503/231-6164)

Finalizing the Regional Plan

The U.S. Pacific Islands Shorebird Conservation Plan is under final review and will be available by December 2004.

Pacific Golden-Plovers

Pacific Golden-Plovers continue to be radio-tagged in Hawaii and searched for in western Alaska. Of the 100 plovers tagged in the five previous seasons, 28 individuals were located in western Alaska. These data indicated that plovers migrating from nonbreeding grounds on Oahu probably nest throughout the known Alaska breeding range of the species.

French Polynesia Survey

In March 2003, biologists from the USFWS and USGS offices in Alaska joined an international expedition, headed by biologists from La Societe d'Ornithologie de Polynesie and Wildland Consultants of New Zealand, and traveled to remote atolls in the Tuamotu Archipelago, French Polynesia. Two of the objectives were to search for color-marked Bristle-thighed Curlews and document resident and migratory bird populations and mammalian pest numbers.

Northern Pacific — Sue Thomas (*Sue_Thomas@fws.gov*; 503/231-6164)

The Northern Pacific Region Shorebird Working Group met in February 2004 for the first time since drafting the plan, however implementation of plan goals have progressed measurably over the years. The greatest threat to shorebirds in this region is the loss or degradation of habitat, thus habitat restoration, improving oil spill prevention strategies, and control or elimination of exotic species are top priorities of our plan. A full report of working group activities will be available on the Shorebird Plan web page (<http://shorebirdplan.fws.gov/RegionalShorebird/RegionalReports.htm>) this fall.

Habitat Restoration, Enhancement, and Acquisition

The Pacific Coast Joint Venture, North Coast Land Conservancy, Tillamook Estuary Partnership, Wetlands Conservancy, Ducks Unlimited (DU), The Nature Conservancy (TNC), National Fish and Wildlife Foundation, Audubon, private individuals, State and Federal agencies are actively acquiring or restoring important shorebird habitats in Nehalem, Siletz and Tillamook Bays, the Lower Columbia, Neawanna, Coquille, New and Siuslaw Rivers of Oregon, and Willapa Bay, Gray's Harbor, and the Snohomish

Delta, Washington, through North American Wetland Conservation Act and National Coastal Wetland Conservation grants.

Washington Department of Fish and Wildlife (WDFW), Cascade Land Conservancy, DU, US Fish and Wildlife Service (USFWS), Natural Resources Conservation Service (NRCS), Audubon, Washington Department of Ecology (WDOE) and the Army Corps of Engineers (ACOE) have teamed up to restore estuary and riverine habitats in Willapa Bay and Gray's Harbor.

Partners are currently applying for grants to purchase and restore private lands within the Dungeness River Estuary, a key stopover site for shorebirds, particularly during fall migration.

Oil Spill Prevention and Response Efficiency

Through funding from the Washington State Legislature and support by the WDOE, the Barbara Foss rescue tug, stationed at the entry to the Strait of Juan de Fuca for oil spill prevention successfully completed it's sixth season of duty this winter. Approximately 15 billion gallons of oil are carried through this sensitive rocky shoreline habitat annually. With the next closest rescue tug 5-6 hours east of the entry, the potential for a spill increases.

The USFWS recently released the Best Management Practices for Migratory Bird Care During Oil Spill Response. The document is meant to assist in the development of contingency plans for deterring oiled birds from the spill site and dealing with oiled birds.

Control or Elimination of Exotic Species

To date, intensive spartina eradication measures in Willapa Bay, the site of heaviest spartina colonization in the Region, have organized under the Comprehensive Unified Plan for Spartina Control in Willapa Bay. Partners include USFWS, WDFW, other state and federal agencies, Washington State University (WSU), University of Washington, Coastal Resource Alliance, Willapa Bay - Gray's Harbor Oyster Growers Association, Pacific Coastal Shellfish Growers Association, and private individuals.

Further to the north, Washington Department of Agriculture and the North Puget Sound Spartina Task Force have begun to coordinate efforts to control spartina under the Draft 2002 Spartina Management Plan for Northern Puget Sound.

Spartina has not yet become an issue in Oregon, however the Oregon Department of Agriculture prepared and tested the Oregon Spartina Response Plan in 2003.

Partners in Western Snowy Plover (USFWS, US Forest Service-USFS, Bureau of Land Management-BLM, Washington State Parks and Recreation Commission-WSP, Oregon Parks and Recreation Division (OPRD), WDFW, and Oregon Department of Fish and Wildlife-ODFW) habitat restoration have teamed up to remove European beachgrass, an invasive, non native species that quickly colonizes dunes in plover nesting habitat, rendering them unsuitable. Projects in both states have proven to be successful with plovers nesting in recently cleared dunes the next breeding season.

Conservation Planning

Management of Oregon's ocean shores has been consolidated under the Ocean Shores Management Plan and in areas identified for recovery of the Western Snowy Plover, the Habitat Conservation Plan for Western Snowy Plover. This effort was organized largely by OPRD.

TNC published the Willamette Valley/Puget Trough/Georgia Basin Ecoregional Assessment and is finalizing the Northern Coast Ecoregional Assessment. The primary goal of these assessments is to prioritize areas that support the ecoregion's biodiversity. These projects offer excellent spatial data and analysis of target species and habitats within the region.

On a smaller scale, The Nature Conservancy, Skagit Staff are drafting a Biodiversity Assessment for the Greater Skagit Delta. This assessment is intended to provide baseline information on Delta ecology, threats and vital conservation needs.

Research Activities

Ongoing research in the Willamette Valley includes the study of site connectivity of wetlands and movement patterns of wintering shorebirds in the valley by the USGS Forest and Rangeland Ecosystem Science Center (FRES). Extensive documentation of winter Dunlin movements have shown a high degree of functional connectivity of habitats in the valley.

Researchers with Point Reyes Bird Observatory, USGS, and Prince William Sound Science Center have again teamed up to study migration dynamics of Western Sandpipers in the Pacific Flyway. They will examine migration strategy versus habitat quality through blood chemistry parameters. Bandon Marsh, OR and Gray's Harbor, WA were focal points of this valuable research project this year.

Scientists with WSU and Friends of Willapa NWR are currently assessing shorebird response to spartina control efforts in Willapa Bay. They are monitoring treatment areas with remote video and visual counts of shorebirds, prey density and availability to quantify use of treated areas and make informed recommendations to enhance efficiency of control measures.

Monitoring Activities

The development of regional assessments for migration monitoring under the auspices of PRISM (Program for Regional and International Shorebird Monitoring) has continued with the efforts of the USFWS and WDFW. Monitoring assessments for the Oregon Coast, Willapa Bay and the Northern Olympic Peninsula are available for review. Assessments for Gray's Harbor and the Puget Sound are underway.

USGS-FRESC has developed several new protocols for monitoring Black Oystercatchers and Western Snowy Plovers along the Oregon coast. These protocols focus on breeding season surveys for oystercatchers and plovers as well as wintering, recreational disturbance, and predator documentation surveys for plovers.

Western Snowy Plover recovery partners in Oregon (BLM, USFWS, USFS, ODFW, and ODPR) completed their fourteenth year of monitoring plovers during the breeding season on the Oregon coast. Numbers appear to be stable, yet low.

The USFWS is coordinating Black Oystercatcher surveys along the central Oregon coast for community volunteers again this year.

WDFW is reforming their network of citizen scientists to monitor northern Puget Sound shorebird sites year round.

TNC continues to monitor shorebird use of a key high tide roost in the Port Susan Bay Preserve and adjacent agricultural lands in the northern Puget Sound.

Dungeness NWR and partners will continue to monitor for green crabs, a potentially invasive species found in the Northern Puget Sound and Olympic Peninsula.

Biologists also continue to monitor the outer coastal beaches of Washington and Totten Inlet. Twenty and 27-year datasets, respectively, have been collected for these key areas.

Outreach and Education

An electronic fieldtrip was hosted by the USFWS geared toward teaching students from grades 4-10 how to identify shorebirds of the Pacific Flyway. Approximately 3000 students "attended."

Shorebird Sister Schools (SSSP) began production of life-sized shorebird identification flashcards for use in schools. These color illustrations list 4 or 5 key identification marks in Spanish and English.

The Oregon Coast NWR has been very active bringing SSSP to classrooms along the coast. Students completed a semester-long Shorebird Sister Schools program on

shorebird biology, habitat and identification. They wrapped up the project by removing over 600 gallons of trash from a local estuary and creating "Trashpipers" from their findings!

Nisqually NWR and Gray's Harbor Audubon hosted the Gray's Harbor Shorebird Festival again this year. The festival was a big success with hundreds of visitors attending an educational fair, conservation and identification presentations, field trips and an evening banquet.

WDFW has also been active with SSSP, bringing the shorebird education kit into classrooms in the Northern Puget Sound. We hear that the shorebird puppets were a big hit!

Southern Pacific — Catherine Hickey (*chickey@prbo.org*; 415-868-0371 x307)

Southern Pacific Shorebird Conservation Coordinator continued to serve as U.S. Shorebird Conservation Council Vice-Chair, engaging with the Council's Executive Committee and helping facilitate Council and Technical Committee meetings.

Completed updated draft of the Southern Pacific Shorebird Conservation Plan, January 2004. Plan available for download and review from PRBO website (www.prbo.org).

Central Valley

Membership and active participation on planning and technical committees of the Central Valley Joint Venture, including the Technical Committee, the Plan Update Committee (responsible for overseeing the 2004 update to the Implementation Strategy), and the Tulare Basin Planning Group. Working to integrate shorebird habitat needs into the Central Valley Joint Venture Implementation Strategy that is being updated for fall 2004. Contributing specifically to two chapters: non-breeding shorebirds and breeding shorebirds (see below).

Convened the Central Valley Shorebird Working Group for the fifth and sixth working group meetings on April 23, 2003 and May 24, 2004. Discussed process of setting population and habitat objectives for 3 different "groups" of shorebirds, each requiring a different approach: 1) "wetland" dependent non-breeders, 2) drier ag habitat dependent non-breeders (e.g. LBCU, MOPL), and 3) "wetland" dependent breeders. We set tentative population targets for non-breeding wetland dependent shorebirds in the Valley as 50% increase over current estimates for winter and spring, and as double current estimate for fall. To set habitat objectives to support those population targets, we chose to take an energetic approach, similar to that used for wintering waterfowl in the Central Valley and for shorebirds in other regions of the country like the Mississippi Alluvial Valley. Modeling efforts are proceeding, facilitated by DU. Data used for effort are

from Pacific Flyway Project. Results will be incorporated into Non-breeding Shorebirds chapter of the Central Valley Joint Venture Implementation Strategy Update.

Relevant to setting breeding shorebird habitat objectives, we completed a comprehensive valleywide survey of breeding shorebirds during May and June 2003. We estimated approximately 30,000 Black-necked Stilts and 10,500 American Avocets were in the Central Valley, exclusive of Suisun Marsh. Contact Catherine Hickey (chickey@prbo.org) for report containing info on habitat use, distribution, and management and research recommendations. The survey was funded in part by the CVJV. Based on findings of this project and what we know about historic habitat conditions, the Central Valley Shorebird Working Group is setting tentative breeding population and habitat objectives as to be incorporated into a Breeding Shorebirds chapter of the Central Valley Joint Venture Implementation Strategy Update.

Developing research proposals for highest priority projects in the Central Valley, including winter survey work targeted at investigating Long-billed Curlew status, distribution, habitat use, and movements. LBCU, categorized as highly imperiled in the US Plan, not adequately surveyed by the Pacific Flyway Project.

Developed and initiated a monitoring project to assess the value of private lands habitat programs in California, particularly the Central Valley, to migratory and resident bird populations. Partner programs include California Department of Fish and Game's California Landowner Incentive Program and CDFG's California Waterfowl Habitat Program, NRCS's Wetlands Reserve Program, USFWS Partners for Fish and Wildlife. The project is also partly funded by the CVJV. Project goals 1) to determine the value of their programs in supporting migratory and resident bird populations, 2) improve the value of their programs by using assessment results to guide appropriate site selection, restoration design, and management practices, and 3) guide decisions on the most effective use of future program funds.

Comment: Federal and state easement and private lands habitat programs are real viable means for implementing shorebird habitat objectives. Especially in the next few years for increasing the amount of summer flooded wetlands (e.g. LIP's 725 acres semi-permanent wetlands) and fall foraging habitat (e.g. LIP's 2000 acres of post-harvest cropland flooding). I encourage other regions to be involved with LIP proposal development by their state agencies.

California Coast

Membership and active participation on the Restoration Strategy and Technical Committee of the San Francisco Bay Joint Venture. Developing an all-bird addendum that will incorporate goals, objectives, and recommendations from the national, regional, and habitat specific bird conservation plans.

Initiated the California Coast Shorebird Working Group and held first meeting April 2003. Approximately 30 participants from federal, state, and private resource conservation organizations attended.

Completion of two very relevant reports to shorebird conservation in San Francisco Bay. One that predicts effects of habitat change on San Francisco Bay bird communities and evaluates potential salt pond conversion/salt marsh restoration scenarios in the bay. The second assesses potential impacts of non-native *Spartina* spread on shorebird populations in the South San Francisco Bay.

Submitted to USFWS response to petition to de-list the coastal population of the Pacific Coast Snowy Plover. Response included a summary of banding and survey data of Snowy Plover in the interior west and on the US Pacific Coast. Response argued for the maintenance of the threatened listing status for the population and for its justification as a Distinct Population Segment under the guidelines of the DPS policy. Multiple letters with supporting evidence were submitted to the USFWS by partners within the plover's range.

Intensive Snowy Plover recovery efforts continued along the coast of California.

General Outreach Publications

Distributed 1000 copies of brochure and accompanying posters: Shorebird Conservation in the Southern Pacific Shorebird Planning Region.

Ongoing distribution at festivals and meetings of white paper titled, "Birds on West Coast Beaches: How You Can Help". This white paper describes effects of human-caused beach disturbance to wintering, migrating and breeding shorebirds and is being disseminated to coastal refuges, reserves, and national parks along the west coast of the U.S.

Ongoing distribution of white paper titled, "Shorebirds in the Central Valley". This white paper describes shorebird use and population trends in the Central Valley and highlights conservation recommendations.

Revised initial white paper – ongoing distribution paper titled "Shorebirds in South San Francisco Bay Salt Ponds" which describes the habitat value of salt ponds for shorebirds and other waterbirds.

Over 50 additional US Shorebird Conservation Plans distributed to wetlands conservation partners throughout California.

Classroom Education Products and Publications

In partnership with USFWS Shorebird Sister Schools Program:

Presented to 6 classes in 2003-2004 activities linking shorebird and waterfowl identification and surveys to the California State Mathematics Standards for estimating, sorting, and classifying.

Developed and disseminated wetland and shorebird web resources for teachers. List of resources, including videos and shorebird educational sites available on the web, will be disseminated to teachers attending the Aug 9 – 11 workshop. Focus for Aug 9 – 11 teacher workshop will be problems and solutions for shorebirds and wetlands of SF Bay, developed in partnership with STRAW.

Continued hosting Shorebird Sister Schools Program educational “trunk” which is now available for sign-out to teachers in Marin and Sonoma counties.

Continuing to disseminate Shorebird Sister Schools Program information to educators in SF Bay Area.

Completed final educational display titled, “Beaches are Habitat!” Distributed to two homeowners associations that contain Snowy Plover habitat and to visitor centers. On display at ‘Birds of the Pacific Slope’ museum exhibit at the Presidio, San Francisco, July 9 – Aug. 14th. Also on display at the Monterey Bay Festival at Monterey Bay Aquarium, 22 May 2004, Surfrider Migration Festival, Stinson Beach, 19, June 2004 and other tabling events, and in a clearinghouse of outreach tools for access by west coast beach habitat managers and educators. The display also is being used by USFWS Refuges, California State Parks, the National Park Service, the California Department of Fish and Game, and various non-profits. It includes a hands-on ‘make-a-scrape’ activity in which students construct life-like Snowy Plover nests.

Produced a laminated Waterbird Identification Chart with pictures of common species for use in the field - 20 copies disseminated to teachers and available on web site.

Led four “Waterbirds of our Wetlands” in-field experiences for elementary school students and teachers.

Snowy Plover Outreach Activities

Coordinated Marsh Mud Stomp in March 2004 to enhance Snowy Plover breeding habitat in Elkhorn Slough.

Continued to participate in range-wide Snowy Plover outreach team through regular conference calls.

Convened range-wide Snowy Plover outreach team and developed priority outreach goals, including a range-wide Snowy Plover website modeled on the Piper Plover site.

Ongoing coordination of Snowy Plover outreach efforts in Recovery Unit 4 (Northern to Central California and Monterey Bay).

Provide on-going technical assistance to Point Reyes National Seashore for Snowy Plover outreach efforts.

Developing plover display for new visitor center at Pajaro Dunes with the Pajaro Dunes Homeowners Association and Friends of the Pajaro.

Outreach Presentations

SFBJV - South San Francisco Bay Salt Pond Restoration. Presented to the League of Women Voters (Oakland, 21 May 2004), 'Celebrate the Flyway' (Mare Island, 24 January, 2004), planned presentation for Hewlett Packard (Fall 2004).

Bodega Homeowners Association: Role of Bodega Harbor for shorebirds migrating along the Pacific Flyway (14 May 2004).

Intermountain West — Don Paul (*avocet@qwest.net*; 801-643-5703)

Intermountain West Shorebird Group

A working group has been organized to assist in developing a Western States all-bird coordination approach that will involve the four major bird plans and supporting cast. This will include those interested in and involved in the Intermountain Shorebird Plan. The group has been working through the assistance of the PIF Western Working Group (WWG). The idea involves holding coordination sessions for all-birds at strategic meetings i.e., WWG, flyway councils etc.

Aquatic Bird Working Group Session at PIF Meeting

An aquatic bird conservation session was held at the March WWG Meeting in Colorado Springs, CO. Topics discussed involved an update of the Western States aquatic bird CBM effort, An overview of the current and past Pacific Flyway Council and Pacific Flyway Study Group conservation actions, a request to develop a list of potential state Shorebird and Waterbird Plan implementation partners for the Intermountain Region.

Intermountain West JV State All-bird Conservation Plans

The Intermountain West Joint Venture and its state partners are nearing the completion of 11 State All-Bird Conservation Plans. Each plan addresses the needs of priority species and habitats from each of the regional plans, including the Intermountain Shorebird Plan. Part of this planning effort is to identify specific areas in each state where conservation work (largely habitat conservation) will be carried out in the next few years. These areas are called Bird Habitat Conservation Areas (BHCA). These areas and their respective plans are designed to assist states in the development of target work areas within their CWCS that is due to be completed in October 2005.

Shorebird Sister Schools Program and Linking Communities Initiative

The Shorebird Sister Schools (SSS) program continues to be an important conservation component of the Linking Communities, Wetlands and Migratory birds Initiative (links three WHSRN sites; Chaplin Lake, Great Salt Lake and Marismas Nacionales). In January this year five Utah Linking Partners visited the communities associated with the Marismas Nacionales in cooperation with SEMARNAT officials and other Mexican community partners. Two new SSS schools were visited one of which, hosted a bird festival on a Saturday where 600 participants gathered to have lots of fun, food and to participate in many SSS activities. The Utah partners delivered \$1,800 for SSS continued activities and for conservation based tourism.

In May three of our Mexican Linking partners visited the Great Salt Lake Bird Festival and made five school visits in Northern Utah. The visitors Carlos Villar from the Mexican Department of Environment and Natural Resources in Nayarit; Abel Castillo, principal of the Emiliano Zapata Elementary School in Villa Hidalgo, Nayarit; and Guadalupe Velazquez, an environmental educator from Tepic, Nayarit. Plans were made to bring two additional schools each from the Marismas Nacionales communities and Utah into the SSS program in 2004. Other conservation actions are being developed between Linking partners to strengthen the conservation actions for shorebirds and other aquatic birds.

Northern Plains/Prairie Potholes — Lisa Gelvin-Innvaer (*lisa.gelvin-innvaer@dnr.state.mn.us*; 507/359-6033) and Neal Niemuth (*neal_niemuth@fws.gov*; 701/250-4413)

Minnesota All Bird Conservation Planning

Workshops, on Minnesota All-bird Conservation Planning (tentatively called MNBCI) were held, with financial support from IAFWA, in October 2003 and April 2004. A shorebird breakout session was held in April, 6 biologists, to discuss and formulate a series of goals for both breeding and migrant birds. We examined the habitat

requirements for each Minnesota breeding species and identified specific questions or research needs. We approached migrant shorebirds by looking at management needs by foraging guilds in each of the state's Bird Conservation Regions (BCRs) and considering both site and landscape-level habitats needs. Foraging and roosting habitats (including significant habitat gaps along migration routes) and integration with other key bird groups (e.g. waterfowl, grassland birds) should also be considered. Finally, we set tentative population goals for 4 species: Marbled Godwit (double current population within 15 years); Upland Sandpiper (double current population within 15 years); Wilson's Phalarope (5x population within 15 years); and American Avocet (establish 2 separate breeding populations consisting of at least 10 pairs in each population). Handouts (for more details re: shorebird aspect, contact lisa.gelvin-innvaer@dnr.state.mn.us and Robert_Russell@fws.gov)

The Prairie Pothole Joint Venture held a non-waterfowl initiatives meeting, in preparation for PPJV Implementation Plan, on 21 October 2003 Fergus Falls, MN (For more details, contact carol_lively@fws.gov).

Minnesota Steering Committee — Joint Ventures

The overall mission of this group is to facilitate and support partnerships to accomplish the restoration and protection of wetlands and associated habitats through grant programs. The MSC recently assembled a technical team to consider the revision and updating of focus areas for implementation of the NABCI bird plans that pertain to these habitats in MN. Trying to examine available bird habitat models and other useful GIS layers (e.g. re: grasslands, wetlands, shallow lakes, WRP priorities, ownership/landuse, etc) to help guide this process. Fortunately, there is a significant amount of cross membership between the MSC and MNCBI to promote the exchange of information.

Minnesota Shorebird Workshop

A shorebird workshop, free for public, will be held 30 July – 1 August and will be hosted by Big Stone and Waubay NWRs. Activities include classroom instruction in both advanced and beginning shorebird I.D. techniques, shorebird ecology and migration strategies. In addition, the workshop will include an update on the current shorebird research that is being conducted on Big Stone NWR. The workshop will focus on classroom instruction as well as field trips to the best shorebird locations on Big Stone Refuge, including areas not normally accessible to the public. One of the major workshop field trips will focus on the upland Prairie Pothole country of Northeast South Dakota. Waubay NWR manages a large amount of very good shorebird habitat in South Dakota. They will be visiting some of the very best of those locations.

Pothole Shorebird Surveys

In spring of 2004, the Region 6 HAPET Office went fully operational with a breeding shorebird survey covering the Prairie Pothole portion of North Dakota, South Dakota, and northeastern Montana. The survey builds on two years of research that evaluated sampling procedures and timing; each route is being run twice to increase detection of target species. Volunteers from federal and state agencies, universities, and birding groups are running survey routes. The survey will be conducted annually to monitor populations of American Avocet, Willet, Upland Sandpiper, Marbled Godwit, Common Snipe, and Wilson's Phalarope in the Prairie Pothole Region. More importantly, all survey points are georeferenced, and data from the survey will be used to develop spatially explicit habitat models to guide conservation planning in the region. This project is being conducted in conjunction with the Region 3 HAPET Office to provide coordinated coverage throughout the Prairie Pothole Joint Venture. Early reports indicate good success with survey protocol and presence of anticipated relationships between shorebirds and landscape composition. Contact Diane_Granfors@fws.gov or Neal_Niemuth@fws.gov.

Marbled Godwit Atlas

The Marbled Godwit Atlas project continues in western Minnesota. Initial results show an estimated breeding population between 200 and 400 pairs ranging from the northwestern corner of the state south and east to Stearns and Traverse Counties, Minnesota. Findings of this study will be utilized to verify the Marbled Godwit Habitat Model developed by the HAPET office in Fergus Falls, Minnesota (Diane Granfors, Rex Johnson).

Prairie Habitat Restoration

In recent weeks, the Prairie Pothole Joint Venture has provided information to a non-profit group that is considering funding a habitat restoration project for shorebirds breeding in North Dakota. Potential project opportunities were evaluated in conjunction with the USFWS Partners for Fish and Wildlife program as well as spatial habitat models developed at the Bismarck HAPET office.

Prairie Migrant Shorebirds

In fall of 2003, results of a 2001 study of migrant shorebirds in the Prairie Pothole Region were summarized in Birdscapes. The study demonstrated extensive use of small, isolated wetlands in agricultural fields in the Drift Prairie of North Dakota, suggesting that prairie potholes in the region likely host millions of shorebirds during migration. Results of the study are particularly valuable in light of the SWANCC decision as well as efforts to limit protection of wetlands under the Swampbuster provision of the Farm Bill.

For more information, scroll to the bottom of the page at
<<http://library.fws.gov/Birdscapes/fall03/Updates.html>>.

Biologists continue to monitor spring shorebird migration at Hamden Slough National Wildlife Refuge, and Mary Soler, wildlife biologist at the Litchfield Wetland Management District, Minnesota, continues to monitor 2 sites for the International Shorebird Survey.

Central Plains/Playa Lakes — Suzanne Fellows and Brian Sullivan
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Playa Lakes Joint Venture

As a “working group” we don’t meet, however, members from the original working group are assisting with state and the Playa Lakes Joint Venture all bird/shorebird planning groups. The CP/PLR is represented by shorebird experience on the Monitoring, Evaluation, and Research Team by representatives from several states, NRCS, and TNC.

Playa Lake Joint Venture has 2 planning teams which are addressing shorebird needs within the CP/PLR—the Migrating Shorebirds and the Grassland/Riparian Birds (primarily LBCU, MOUP, UPSA, SPSA, PIPL). The Migrating Shorebird Planning Team presented a proposed outline of how they are addressing development of habitat and population goals at the technical meeting of the Shorebird Council for review/comments/questions.

Nebraska BCRs 18 and 19 (outside of the Rainwater Basin Joint Venture area) was formally annexed into the PLJV in June 2003.

The PLJV Shorebird Team has developed migrant shorebird current population estimates, and population goals (stepped down from national goals). Based on studies of invertebrate availability in the region, the team has developed shorebird habitat acreage needs for the BCR 18 and 19 portions of each of the 6 PLJV states (TX, OK, KS, NE, CO, and NM).

The team also has identified important shorebird habitats in the region. The PLJV recently developed a GIS and hired a GIS analyst, and efforts are underway to determine the acreage and location of wetland habitats available to shorebirds in the region. This is an important step in determining current carrying capacity of the region for migrant shorebirds, and in determining if habitat shortfalls exist.

Adrian Andrei’s saline lake shorebird studies are nearly complete (Texas Tech Univ. under Dr. Loren Smith). Field and lab work are complete, and data analysis is nearly complete. Adrian plans to defend his dissertation in November 2004. His studies are

producing important information on the ecology of migrant shorebirds in this important habitat, including invertebrate densities. The PLJV Shorebird Team recently developed and prioritized shorebird research needs, which include monitoring, habitat use, and diets of priority species.

PLJV staff traveled to each PLJV state during spring 2004 to discuss bird conservation planning and implementation. Presentations on shorebird planning status/progress were made at each meeting, and received favorable feedback. PLJV shorebird population goals, habitat goals, and research needs will be communicated to state agency staff responsible for developing the State Comprehensive Wildlife Strategies.

PRISM Surveys

PRISM Temperate Breeding Surveys are in full swing with the Long-billed Curlew rangewide breeding survey. There are routes across the CP/PLR and the USFWS/USGS project is being assisted by several state biologists, NGOs, and JV/BCR personnel. Regional assessments for temperate migrating species proceeds at an extremely slow speed but is being worked on as time allows.

Education and Outreach

Education/Outreach projects within the CP/PLR and USFWS Region 6 mainly involve work through the Shorebird Sister Schools Program.

A presentation was given at the Kansas Association for Conservation and Environmental Education November 2003 workshop, two teacher workshops are planned for July 2004 (Quivira NWR/Friends University/Great Plains Nature Center and Waubay NWR) as well as trying for a repeat presentation at the KACEE conference in November 2004. Interest was high and there was a request for several more discovery trunks from participants. Funding permitting in FY05 these needs will be addressed.

Jennifer Hajj of Tracey Aviary in Utah has been working with schools in Argentina to tie migratory shorebirds using Great Salt Lake and wintering species in Argentina together through the SSSP Pen Pal project.

As part of the LBCU rangewide breeding survey, we have also agreed to send in reports to the SSSP for a spring tracking project.

The Region 1 coordinator contracted with a local artist to develop shorebird identification flash cards which the national program has extended to the central and eastern species. Spanish translations for the Pacific species were provided by Adrianna Araya, Region 6 Migratory Bird Management Office.

Spring Shorebird Migration Conditions

Spring 2003 was characterized by extremes of drought which provided optimum habitat followed by heavy precipitation in many parts of the region which wrecked havoc with breeding Piping Plovers and raised water levels on lakes and ponds, eliminating habitat there but flooding fields and providing a different type of shorebird habitat. Artificial and natural drawdowns in several parts of the region (western Minnesota, Squaw Creek NWR (MO), Ottawa NWR (OH), provided habitat for thousands of shorebirds in late April and the first 3 weeks of May. Dry conditions in Indiana and East Central Illinois attracted few American Golden-Plover in early spring, but returning rains in mid-May set the stage for a late but moderately heavy movement at traditional staging grounds. 3000+ Dunlins staged at Crane Creek in Ohio along with many thousands of other species.

Marbled Godwit were slow to arrive in western Minnesota breeding grounds, but appear to now be in normal numbers. Numbers of Marbled Godwit migrating in May, presumably James Bay breeding birds, were recorded in excellent numbers in northern Minnesota and Wisconsin with a near-record 34 seen on a one-day fallout at Ashland, Wisconsin's Chequamegon Bay. Hudsonian Godwit were widely recorded as far east as Illinois and Michigan, but only a couple of 30+ concentrations were reported this spring. American Avocets apparently moved eastward in large numbers from drought-hit South Dakota and were widely recorded in Iowa and western Minnesota. Ruddy Turnstone staged a strong movement across a widespread front from Ohio to Minnesota with many more inland records than usual. Cold weather to the north seemed to stall numbers of these birds and several incidents of turnstone predation on Common Tern eggs were reported including terns at one Wisconsin colony and at tiny Mille Lacs NWR in Mille Lacs, Minnesota

The Whimbrel migration on the Great Lakes was a bit more prolonged and widespread than normal with birds recorded individually or in smaller flocks than some years. Inland Whimbrels continue to increase with several reports from Missouri, Wisconsin, Iowa, Illinois, and Minnesota. Willet reports seemed in normal numbers while the Black-necked Stilt colonization of the Great Lakes region continues unabated with multiple reports in all states in the region. Rarely found shorebirds included Wilson's Plover in Wisconsin, multiple Ruffs in Minnesota, a Snowy Plover in Minnesota, and Minnesota's 2nd ever Curlew Sandpiper. The only ominous note was the nearly complete lack of Buff-breasted Sandpiper reports. Perhaps ideal habitat in the form of drying ponds on the Great Plains kept most of these birds farther west this year.

National Wildlife Refuges and Wetland Management District

Tara VanWyck from Ohio State University is continuing her research on landscape-level habitat usage by shorebirds in northern Ohio including Ottawa NWR. Ottawa NWR has had approximately 400-500 acres in drawdown this spring and summer. Joint DU projects of a 40-acre shallow water sedge marsh and another 120-acre wetland and associated upland prairie restoration should provide additional shorebird habitat, at least in the early stages of restoration. An interesting coastal restoration-research project at Ottawa by Kurt P. Kowalski of USGS using aqua-dams (water-filled sausage-shaped tubes) to restore 20-30 acres of Lake Erie-scoured coastline attracted thousands of shorebirds to newly-created flats. Additionally, a drawdown at nearby Metzger Marsh for common reed (*Phragmites* sp.) control attracted many shorebirds.

Piping Plover

A preliminary survey in mid-May for Piping Plover in the Great Lakes found 49 pairs with 37 known nests but the heavy, and in Michigan, unprecedented late May rains, caused major flooding and lake-level rises or overwash at many sites and resultant nest destruction (Jack Dingleline, Michigan ES office). A nesting pair in Wisconsin and a pair in Duluth (MN) Harbor were causes for optimism while the overall total awaits renesting attempts and later surveys. A University of Minnesota thesis study by Vanessa Duong Pompei of migrant stopover habitat usage in the Mid-continent by Piping Plovers continues.

Stopover Length of Pectoral and Least Sandpipers

Adrian Farmer, (USGS, Ft. Collins, Colorado), will continue his stopover study of Pectoral and Least Sandpipers at Squaw Creek NWR, Missouri in the fall migration and will hopefully conduct research for one more year in 2005. At least thirty shorebird species migrate across the Great Plains of North America each year during the spring and fall. Many of these species' populations appear to be declining, but there are few reliable population estimates that can be used as benchmarks for monitoring efforts or for measuring the success of future management efforts. Current "population" estimates are derived from a variety of peak counts, conducted at different spatial scales and at different times, and consequently underestimate population size because all individuals do not migrate through the plains simultaneously. Obtaining unbiased estimates of population sizes will require the measurement of turnover rates, or 'length-of-stay' of shorebirds, combined with periodic census data obtained from different sites within the plains.

Squaw Creek NWR began a 3-year study in 2003 (with Region 3 Science Support funds) to estimate length-of-stay and population size for Least Sandpipers (*Calidris minutilla*) and Pectoral Sandpipers (*Calidris melanotos*) that stopover on the Refuge. The length of stay for both species was about 11 days in the spring of 2003. Combined with weekly

census data, and estimates of detectability, the total estimated shorebird population using Squaw Creek in the spring of 2003 was between 32, 000 and 65, 000 individuals. The 2003 telemetry data showed that more than 30% of individuals radio-tagged on the Refuge moved between the Refuge and surrounding wetland areas. The number of birds outside the refuge during some weekly census periods exceeded the number within the Refuge. Hence, it is not meaningful to attempt to estimate the "population" on the refuge because shorebirds do not recognize property boundaries and their distribution changes daily as well as annually depending on local water conditions.

For the above reason, the study was modified in the spring of 2004 to estimate the total population migrating through the Squaw Creek "Ecosystem", including the Refuge and four surrounding State and private wetland complexes. The weekly surveys, as well as detectability estimates were conducted on these areas in April and May 2004 and the population will be estimated for each area as well as for the entire system. The data are currently being analyzed and preliminary analyses show that the 2004 population was 2 to 3 times higher than for 2003.

The other major stopover study in the region, at Big Stone NWR (Nathan Thomas, University of South Dakota), will conclude following the fall migration season. Preliminary findings at Big Stone showed some Least Sandpipers stopping over as long as 17-19 days with at least one bird utilizing the same site a second year. Blood samples were collected from 62 Least Sandpiper and 9 Semipalmated Sandpiper, but analysis has yet to occur. Agassiz NWR only had scheduled two drawdowns this year and the rains interfered with those, resulting in almost no shorebird use on the refuge. Hamden Slough NWR, Minnesota, continues to restore wetlands and lakes (235 wetlands restored and 2 restored lakes). Five of the six Marbled Godwit pairs known in western Becker County breed on the refuge.

Shorebird Natural History

At the regional USFWS office, Bob Russell is continuing to map and delineate migration routes, chronologies, and relevant natural history for all Midwestern shorebirds with the assistance of Mary Mitchell, R3 GIS specialist. Identification of important shorebird sites continues with several new sites in Missouri and Illinois added to the list and a few Illinois sites eliminated due to the availability of additional data. It appears that new data obtained may justify upgrading the status of WHSRN network sites Chautauqua NWR, Illinois on the Illinois River and Squaw Creek NWR, Missouri to more than 100,000 birds annually recorded or sites of "international significance."

Identification of shorebird priorities for each state in the region is being developed to assist state managers in the writing of the State Wildlife Plans (completed for both Michigan's Upper and Lower Peninsulas and Minnesota). Migratory Birds also provided The Nature Conservancy's Kankakee Sands Project (Indiana) and Western Lake Erie Project (Michigan, Ohio) with detailed shorebird information on priority species and

species goals. We provided the Great Lakes ecosystem team with a list of Great Lakes sites that qualify as important shorebird areas and also a paper on shorebird usage of Great Lakes islands for the Great Lakes island team. We have also provided initial population estimates by state for several regional states including Illinois, Wisconsin, and Minnesota. The Illinois results were published in *The Meadowlark* and resulted in valuable feedback from state birders and biologists warranting a future revision based on their comments.

Lower Mississippi/Western Gulf Coast — Contact (Randy_Wilson@fws.gov; 601/629-6626)

The Lower Mississippi Valley Joint Venture continues to support research to evaluate assumptions of their shorebird habitat models and to evaluate shorebird use of the region. One study, *The Impacts of Shorebird Foraging on Macroinvertebrates in the Lower Mississippi Alluvial Valley*, is given below.

Shorebirds use stopover sites throughout the Lower Mississippi Alluvial Valley (LMAV) to fuel their southern migration. At these stopover sites shorebirds exploit macroinvertebrates as their primary foraging material during migration. Studies from coastal areas suggest that shorebirds significantly deplete macroinvertebrate abundance and biomass at stopover sites. Whether these same results are true for the LMAV remains to be evaluated. An exclosure experiment was conducted on five National Wildlife Refuges (NWR) stretching 400 km throughout the LMAV to see if shorebird foraging impacted macroinvertebrate community composition, abundance, and standing-stock biomass (SSB). Macroinvertebrates were sampled in the late summer of 2001 and 2002 from exclosure areas and open areas and compared using two-sample paired t-tests. Community composition was not affected by shorebird foraging and was relatively similar between the five refuges sampled. Macroinvertebrate abundances ranged from 300 to 433,000 individuals/m² with a mean of 66,500 individuals/m². Shorebird foraging had no significant impact on abundance. Macroinvertebrate SSB ranged from less than 0.1 to greater than 24.4 g AFDM/m² with a mean of 3.43 g AFDM/m². With the exception of one sampling date, 21 August 2001 at Bald Knob NWR, shorebird foraging did not significantly impact macroinvertebrate SSB. On the exceptional date, the difference was due to a reduction of Chironomidae larvae, which was neither the most abundant macroinvertebrate present nor the macroinvertebrate comprising the highest SSB. Results of this study suggest that at present, shorebirds do not have a significant impact on foraging material in the LMAV flyway during their southern migration. However, with continued degradation to other interior regions and increased promotion of shorebird management in the LMAV, the potential exists for shorebirds to increase in numbers high enough to cause significant impacts in the future.

Northern Atlantic — Contact Stephen Brown (sbrown@manomet.org; 508/224-6251 x226) or Larry Niles (larry.niles@dep.state.nj.us; 609/292-9400)

Delaware Bay

Because of conservation concerns about the population of Red Knots (*Calidris canutus rufa*) that use Delaware Bay as a spring stopover, conservation-driven regulations were enacted in 2004 to stabilize and increase the populations of horseshoe crabs in Delaware Bay. Most importantly, harvest levels were reduced, harvest was closed during spring migration, and disturbance on beaches was minimized. Numbers of Red Knots remain >50% below recent historic levels.

Investigators working in Delaware Bay met in Cape May, New Jersey, on May 10, 2004 to discuss last-minute coordination for the field season. The group plans to meet in October to discuss 2004 results and to plan and coordinate activities for 2005. Activities in Delaware can be found at <http://shorebirds.skalar.net/>.

Red-necked Phalarope

The Red-necked Phalarope is one of only three species of phalaropes, the only shorebirds that swim more than they wade and the only shorebirds that are largely pelagic outside of the breeding season. The Red-necked Phalarope breeds in the Arctic tundra and many migrate south through the northeastern United States and Maritimes region of Canada after nesting. Historically, very large concentrations of many thousands of birds used staging sites in the Bay of Fundy and Gulf of Maine, where planktonic food was abundant, principally the copepod *Calanus finmarchicus*. Numbers of phalaropes have declined dramatically at traditional stopover sites in these waters, from tens of thousands in the mid 1980's to virtually none since the early 1990's. The causes for the decline are unknown, as are the effects of the loss of stopover sites on the population of phalaropes. These questions have resulted in the Red-necked Phalarope being classified as a species of "highest priority" in the Atlantic Northern Forest Bird Conservation Region (BCR), the BCR that comprises these migration stopovers for the species. This phalarope is also listed as being of "High Concern" and "High Responsibility" in the BCR, because of the possibility the region's stopover resources are critical to the sustainability of hemispheric populations. The Atlantic Northern Forest BCR plan includes three general monitoring and research goals for Red-necked Phalaropes: 1) identification of key staging areas, 2) protection of present and former stop-over sites, and 3) investigation of movements/declines. A proposal has been developed to hold a workshop of biologists to develop a plan to address these key monitoring and research issues.

Southeastern Coastal Plain/Caribbean — Contact Brad Winn

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The southeastern groups continues to work on coordinating shorebird migration monitoring and evaluating objectives set for passage birds.

American Oystercatcher Working Group

The third annual meeting of the Atlantic Coast American Oystercatcher Working group was hosted by Barry Truitt of the Nature Conservancy, Ruth Boettcher of Virginia Department of Game & Inland Fisheries, and Alex Wilke of the College of William and Mary. The meeting was held at historic Cobb Island Station in Oyster, Virginia. Below are a list of presentations made at that meeting. More information is available at: [<http://www4.ncsu.edu/~simons/AMOY%20Research.htm>](http://www4.ncsu.edu/~simons/AMOY%20Research.htm)

American Oystercatcher breeding distribution and population size in Maryland. *David F. Brinker and James M. McCann, MD DNR, Natural Heritage Program.*

Effects of Disturbance and Predation on American Oystercatchers (*Haematopus palliatus*) During the Breeding Season, Cumberland Island National Seashore, Georgia. *John Sabine, University of Georgia, Warnell School of Forest Resources*

Breeding Distribution of American Oystercatchers in Chesapeake Bay. *Ruth Boettcher, VA Dept. of Game and Inland Fisheries.*

Breeding survey, banding, and productivity monitoring of AMOYs on the barrier islands of Virginia. *Alexandra Wilke, College of William and Mary, Center for Conservation Biology.*

AMOY Breeding Success and Banding at Monomoy NWR. *Shiloh Schulte, Manomet Center for Conservation Science.*

Effects of predator density and human disturbance on AMOY foraging behavior on the Cape Romain National Wildlife Refuge: focal animal results. *Kimberly Peters, SC Cooperative Fish and Wildlife Research Unit, Clemson University.*

Population size, winter distribution, and habitat associations of the eastern subspecies of American Oystercatchers (*Haematopus palliatus palliatus*). *Stephen Brown, Shiloh Schulte, Brian Harrington, Brad Winn, Jonathan Bart, and Marshall Howe.*

Are losses due to flooding increasing? A plea to record heights of nests above water and incubation initiation dates. *Erica Nol, Trent University*

AMOY research and monitoring in North Carolina. *Conor McGowan, North Carolina Cooperative Fish and Wildlife Research Unit*

Breeding, Nesting, and Winter Surveys of AMOYS in the Virginia Barrier island/Lagoon System. *Barry Truitt, The Nature Conservancy.*

Winter distribution of AMOYs in Virginia. *Barry Truitt, The Nature Conservancy.*

Winter oystercatcher distribution in South Carolina. *Felicia Sanders, South Carolina Department of Natural Resources.*